

**What is claimed is:**

1. A tachometer with the variation of the projection light source according to the rotation speed wherein it could set-up the critical standard rotating speed value to provide optimum shift-switch time as well as record the fastest speed condition  
5       happened during racing at least comprising:

A meter body which covers the all components; a microprocessor which is used to calculate all the signals of input and output and achieve to control the function of each parameter; a functional switch selection operation device wherein the parameter is to be settled up outside and each reference data is recorded in the  
10      memory device; a memory device which records the settled parameter value or the input signal of the engine rotating speed to provide optimum reference data; and cylinder changeover switch which could be used to select the cylinder type;

which characteristic is to add a light source device on the circuit device inside the meter body, said light source device comprises:

15       A switch device which outputs a switch signal or a setting signal to the electric-control loop;

An electric-control loop which receives the control signal input by the microprocessor in the circuit device of the rotating tachometer and which also receives the switch signal of the switch device or the set-up signal and has the functional mode  
20      of integrating the memory signal and it outputs the driving RGB illumination device set:

A RGB illumination device set which is settled on the proper position inside the meter body and receives the driving signal input by the electric-control loop;

25       By means of the corresponding value of the rotating speed and the color light source preset in the memory output by the microprocessor and utilizing the electric-

control loop to synchronize-light-mixing to drive the RGB illumination device so when the rotating speed reaches the set-up segment, the projection light source with various color could be changed according to the setting.

2. The tachometer as mentioned in claim 1, wherein the corresponding value of said speed and the color light source could provide the user for setting the speed segment outside with press-button and its corresponding color except for utilizing the memory to record and pre-set.
- 5       3. The tachometer as mentioned in claim 1, wherein the interval value of said speed segment could be settled according to the requirement of the user.
- 10      4. The tachometer as mentioned in claim 1, wherein said color light source provided for setting at least comprises the color such as red, green, blue, yellow, indigo-blue, purple, white.
- 15      5. The tachometer as mentioned in claim 1, wherein the functional mode of said integrating memory signal memorize all the default value after the user sets up the color light source in correspondence with each rotating speed segment, so when the rotating tachometer is being re-set or re-initiated, said corresponding color will never requires re-selected.
- 20      6. The tachometer as mentioned in claim 1, wherein there settles a functional selection operation panel on said tachometer, and there settles the display lamp as well as a plurality of press-button for control on said functional selection operational panel, the user could set-up the speed segment and the corresponding color directly by utilizing the press button.
- 25      7. The tachometer as mentioned in claim 6, wherein the press-button on said functional selection operation panel could be added according to the requirement of the function.